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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/587,913 | 07/31/2006 | Nobuo Takeshita | 1190-0632PUS1 | 2547 |
| 2292 7590 07/02/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | | |
| EXAMINER | | | | |
| AGUSTIN, PETER VINCENT | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2627 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
| 07/02/2008 | | ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/587,913

Applicant(s)

TAKESHITA ET AL.

Examiner

Peter Agustín

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF 298)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

1. This application is a national stage entry of PCT/JP04/12089, filed August 24, 2004.
2. Claims 1-20 are currently pending.

Election/Restrictions

3. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-13, drawn to optical disc (and associated method) wherein the test recording areas in the odd-numbered recording layers and the test recording areas in which the test data are recorded in the even-numbered recording layers do not overlap in the thickness direction of the optical disc, the test recording areas in the odd-numbered recording layers are mutually aligned in the thickness direction, and the test recording layers in the even-numbered recording layers are mutually aligned in the thickness direction.

Group II, claims 14-16, drawn to a recording method wherein the optimal recording power determined near the innermost circumference, the optimal recording power determined near the outermost circumference, and the radial position at which the user data are recorded are used to determine the optimal recording power for recording the user data at said position.

Group III, claims 17 & 18, drawn to a recording method including a first step of recording test data at a plurality of mutually differing recording power values differing in steps of a first predetermined width in a test recording area in a recording layer, reproducing the recorded test data, and evaluating the reproduction results to determine an approximate value of the optimal recording power; a second step of recording test data at a plurality of mutually differing recording power values in a range near said approximate value of the optimal recording power, differing in steps of a second predetermined width smaller than the first predetermined width, in the test recording area in the recording layer, reproducing the recorded test data, and evaluating the reproduction results to determine a more precise value of the optimal recording power; and a third step of recording user data according to the more precise value of the optimal recording power.

Group IV, claim 19, drawn to a recording method wherein the process of determining the optimal recording power by recording and reproducing the test data and evaluating the reproduction results is carried out in the plurality of recording layers before the recording of the user data in the plurality of recording layers.

Group V, claim 20, drawn to a recording method wherein the processing from the recording of the test data to the determination of the optimal recording power is performed simultaneously in the first and second recording layers before the recording of the user data in the first recording layer ends, and the optimum recording power is determined for recording in the first and second recording layers; then the processing from the recording of the test data to the determination of the optimum recording power is performed in the first recording layer to determine a new optimal recording power for the first recording layer; after the new optimal recording power has been determined, subsequent recording of user data in the first recording layer is carried out using the new optimal recording power; and recording of the user data in the second recording layer begins at a recording power determined by use of the recording power that was used at the conclusion of the recording of user data in the first recording layer and a ratio between the respective optimal recording powers obtained for the recording layers when the processing from the recording of the test data to the determination of the optimal recording power was carried out simultaneously in the first and second recording layers before.

4. The inventions listed as Groups I through V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features, i.e., each group has the following special technical features not found in the other groups:

| Group | Special Technical Feature |
|-------|--|
| I | wherein the test recording areas in the odd-numbered recording layers and the test recording areas in which the test data are recorded in the even-numbered recording layers do not overlap in the thickness direction of the optical disc, the test recording areas in the odd-numbered recording layers are mutually aligned in the thickness direction, and the test recording layers in the even-numbered recording layers are mutually aligned in the thickness direction |
| II | wherein the optimal recording power determined near the innermost circumference, the optimal recording power determined near the outermost circumference, and the radial position at which the user data are recorded are used to determine the optimal recording power for recording the user data at said position |
| III | a first step of recording test data at a plurality of mutually differing recording power values differing in steps of a first predetermined width in a test recording area in a recording layer, reproducing the |

| | |
|----|--|
| | recorded test data, and evaluating the reproduction results to determine an approximate value of the optimal recording power; a second step of recording test data at a plurality of mutually differing recording power values in a range near said approximate value of the optimal recording power, differing in steps of a second predetermined width smaller than the first predetermined width, in the test recording area in the recording layer, reproducing the recorded test data, and evaluating the reproduction results to determine a more precise value of the optimal recording power; and a third step of recording user data according to the more precise value of the optimal recording power |
| IV | wherein the process of determining the optimal recording power by recording and reproducing the test data and evaluating the reproduction results is carried out in the plurality of recording layers before the recording of the user data in the plurality of recording layers |
| V | wherein the processing from the recording of the test data to the determination of the optimal recording power is performed simultaneously in the first and second recording layers before the recording of the user data in the first recording layer ends, and the optimum recording power is determined for recording in the first and second recording layers; then the processing from the recording of the test data to the determination of the optimum recording power is performed in the first recording layer to determine a new optimal recording power for the first recording layer; after the new optimal recording power has been determined, subsequent recording of user data in the first recording layer is carried out using the new optimal recording power; and recording of the user data in the second recording layer begins at a recording power determined by use of the recording power that was used at the conclusion of the recording of user data in the first recording layer and a ratio between the respective optimal recording powers obtained for the recording layers when the processing from the recording of the test data to the determination of the optimal recording power was carried out simultaneously in the first and second recording layers before |

5. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not

distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Agustin whose telephone number is (571) 272-7567. The examiner can normally be reached on Monday-Thursday 8:30 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter Vincent Agustin/
Patent Examiner, Art Unit 2627